Arizona State Retirement System

International Equity Asset Class Review

March 16, 2012

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International Equity Asset Class Overview (Aggregate)

Note: All of the data in this section is as of December 31, 2011, unless otherwise noted.

International Equity Asset Class Overview

Market Value: \$4.0 B

Passive Allocation: 47%

Total Fund: \$26.3 B Int'l Equity SAA

Policy: 18%

Active Style Composition:

Core: 14%Growth: 40%

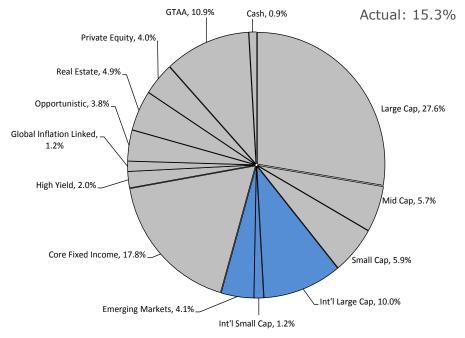
– Value: 46%

Portfolios:

- 3 Passive
- 9 Active

Quantitative: 3 Fundamental: 6

Average Fees: 35 bps



International Equity Asset Class Mandates

Manager	Style	Benchmark	Inception Date	Expected Alpha - Net of Fees (bps)	Portfolio Assets (\$MM)	Strategy Assets (\$MM)
Active Int'l Large Cap Developed						
Aberdeen	Value	MSCI EAFE	2/28/2011	300	\$378.2	\$4,718
Brandes	Value	MSCI EAFE	9/30/1998	250	\$358.8	\$16,185
Hansberger	Growth	MSCI EAFE	7/31/2005	300	\$236.0	\$4,569
Walter Scott	Growth	MSCI EAFE	3/31/2011	300	\$169.0	\$13,767
Active Int'l Small Cap Developed						
DFA	Value	MSCI EAFE Small Cap	8/31/2005	300	\$97.0	\$8,046
Franklin Templeton	Growth	MSCI EAFE Small Cap	3/31/2011	200	\$168.3	\$1,153
Active Emerging Markets						
Eaton Vance	Core	MSCI Emerging Markets	11/30/2010	250	\$314.1	\$8,915
LSV	Value	MSCI Emerging Markets	11/30/2010	350	\$141.4	\$3,005
William Blair	Growth	MSCI Emerging Markets	10/31/2010	150	\$270.3	\$3,788

International Equity Asset Class Mandates

Manager	Style	Benchmark	Inception Date	Expected Alpha Net of Fees (bps)	Portfolio Assets (\$MM)	Strategy Assets (\$MM)
Passive Int'l Large Cap Developed						
BlackRock	Core	MSCI EAFE	6/30/2009	n/a	\$1,490.2	\$60,929
Passive Int'l Small Cap Developed						
BlackRock	Core	MSCI EAFE Small Cap	5/31/2010	n/a	\$52.3	\$600
Passive Emerging Markets						
BlackRock	Core	MSCI Emerging Markets	9/30/2010	n/a	\$358.8	\$17,520

International Equity Asset Class Manager Summary

	Growth	Core	Value	Total*
Large	10.0%	36.9%	18.3%	65.2%
Small	4.2%	1.3%	2.4%	7.9%
Emerging	6.7%	16.7%	3.5%	26.9%
Total*	20.9%	54.9%	24.2%	100%

		Assets Under	0/ 67 111
Maria Nama		Management	% of Int'l
Manager Name		(\$MM)	Equity
Active Int'l Large Cap Developed Equity			
Aberdeen - Value	\$	378.2	9.4%
Brandes - Value	\$ \$ \$	358.8	8.9%
Hansberger - Growth	\$	236.0	5.8%
Walter Scott - Growth	\$	169.0	4.2%
Passive Int'l Large Cap Developed Equity			
BlackRock EAFE - Core	\$	1,490.2	36.9%
Total Int'l Large Cap Developed Equity	\$	2,632.2	65.2%
Active Int'l Small Cap Developed Equity			
DFA - Value	\$	97.0	2.4%
Franklin Templeton - Growth	\$	168.3	4.2%
Passive Int'l Small Cap Developed Equity			
BlackRock EAFE Small Cap	\$	52.3	1.3%
Total Int'l Small Cap Developed Equity	\$	317.5	7.9%
Active Emerging Markets Equity			
Eaton Vance - Core	\$	314.1	7.8%
LSV - Value	₽ \$	141.4	3.5%
William Blair - Growth	₽ \$	270.3	6.7%
	Þ	2/0.3	0.7%
Plack Pack Emerging Markets Equity	+	250.0	0.00/
BlackRock Emerging - Core	\$	358.8	8.9%
Total Emerging Markets Equity	\$	1,084.6	26.9%
Total International Equity	\$	4,034.3	100.0%

^{*}Totals may not add to 100% due to rounding effects.

International Equity Asset Class - Performance

- The Overall ASRS International Equity Asset Class has added 0.4% of alpha since inception (March 1987).
 - Overall asset class performance:
 - 2011 Year: 0.0% (alpha); 51st percentile of ICC International Equity Funds universe.
 - Three-Year: -2.1% (alpha); 61st percentile of ICC International Equity Funds universe.
 - Five-Year: -1.0% (alpha); 65th percentile of ICC International Equity Funds universe.
 - Ten-Year: -1.0% (alpha); 85th percentile of ICC International Equity Funds universe.
 - Overall asset class volatility: Less volatile performance the market (-0.87% vs. ASRS MSCI Custom Benchmark).
- The Fund's International Developed Markets Equity portfolio has added 0.5% of alpha since inception (March 1987).
 - ABERDEEN (Int'l Large Cap Developed, Fundamental)
 - Partial year in 2011; +10.2% alpha since inception (February 2011).
 - Less volatile performance than MSCI EAFE Index (18.2% s.d. vs. 18.7%).
 - BRANDES (Int'l Large Cap Developed, Fundamental)
 - +2.3% alpha in 2011; +3.5% alpha since inception (September 1998).
 - Volatility is in line with Brandes Custom Benchmark (18.6% s.d. vs. 18.6%).
 - HANSBERGER (Int'l Large Cap Developed, Fundamental)
 - -5.0% alpha in 2011; -1.4% alpha since inception (July 2005).
 - More volatile performance than Hansberger Custom Benchmark (24.0% s.d. vs. 21.6%).
 - **WALTER SCOTT** (Int'l Large Cap Developed, Fundamental)
 - Partial year in 2011; +1.9% alpha since inception (March 2011).
 - Less volatile performance than MSCI EAFE Index (16.8% s.d. vs. 18.8%).
 - BLACKROCK (Int'l Large Cap Developed, Passive)
 - -0.1% alpha in 2011; -0.1% alpha since inception (June 2009).
 - Volatility is in line with MSCI EAFE Index (20.0% s.d. vs. 20.0%).

Note: Volatility statistics are calculated using data since inception.

International Equity Asset Class - Performance (Cont'd.)

- The Fund's International Developed Markets Equity portfolio has added 0.5% of alpha since inception (March 1987).
 - DFA (Int'l Small Cap Developed, Quantitative)
 - -4.1% alpha in 2011; -0.3% alpha since inception (August 2005).
 - Less volatile performance than MSCI EAFE Small Cap Index (21.5% s.d. vs. 22.8%).
 - FRANKLIN TEMPLETON (Int'l Small Cap Developed, Fundamental)
 - Partial year in 2011; +3.7% alpha since inception (March 2011).
 - Less volatile performance than MSCI EAFE Small Cap Index (13.6% s.d. vs. 17.1%).
 - BLACKROCK (Int'l Small Cap Developed, Passive)
 - -0.2% alpha in 2011; -0.1% alpha since inception (May 2010).
 - Volatility is in line with MSCI EAFE Small Cap Index (21.1% s.d. vs. 21.1%).

International Equity Asset Class - Performance (Cont'd.)

- The Fund's Emerging Markets Equity portfolio has experienced -1.8% of alpha since inception (September 2010)
 - EATON VANCE (Emerging Markets Equity, Quantitative)
 - -0.8% alpha 2011; -1.4% alpha since inception (November 2010).
 - Less volatile performance than MSCI Emerging Markets Index (22.2% s.d. vs. 24.9%).
 - **LSV** (Emerging Markets Equity, Quantitative)
 - 0.5% alpha 2011; -0.9% alpha since inception (November 2010).
 - Less volatile performance than MSCI Emerging Markets Index (24.3% s.d. vs. 24.9%).
 - **WILLIAM BLAIR** (Emerging Markets Equity, Fundamental)
 - +1.8% alpha in 2011; -0.2% alpha since inception (October 2010).
 - Less volatile performance than MSCI Emerging Markets Index (21.4% s.d. vs. 23.9%).
 - BLACKROCK (Emerging Markets Equity, Passive)
 - -0.4% alpha in 2011; -0.4% alpha since inception (September 2010).
 - Volatility is in line with MSCI Emerging Markets Index (23.3% s.d. vs. 23.3%).

Note: Volatility statistics are calculated using data since inception.

International Equity Rolling Excess Returns

ASRS Combined Int'l Equity vs. MSCI Custom Benchmark¹ Excess Returns Since Inception (March 1987) – December 31, 2011



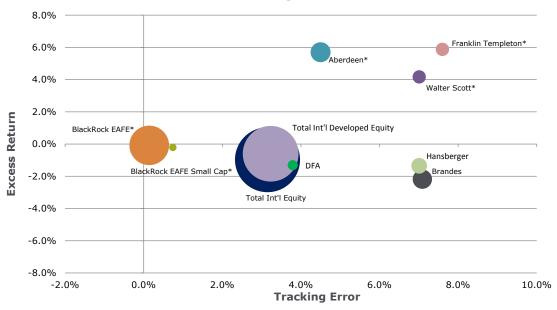


¹MSCI Custom Benchmark is a blend of the MSCI EAFE Index prior to 10/1/2005, the MSCI ACWI ex-U.S. Index from 10/1/2005 – 12/31/2010, and 72% MSCI EAFE/11% MSCI EAFE Small Cap/17% MSCI Emerging Markets from 1/1/2011 - present. *Note: Based on quarterly, net of fee performance data, since inception.*

International Developed Markets Equity Volatility/Return

Volatility/Return Bubble Chart

For the Five Year Period Ending December 31, 2011



	Portfolio			Tracking	Information
Manager	Assets (\$MM)	Inception Date	Alpha	Error	Ratio
Aberdeen*	\$378.2	2/28/2011	5.7%	4.5%	1.3
Brandes	\$358.8	9/30/1998	-2.2%	7.1%	-0.3
Hansberger	\$236.0	7/31/2005	-1.4%	4.7%	-0.3
Walter Scott*	\$169.0	3/31/2011	4.2%	7.0%	0.6
BlackRock EAFE*	\$1,490.2	6/30/2009	-0.1%	0.1%	-0.6
DFA	\$97.0	8/31/2005	-1.3%	3.8%	-0.4
Franklin Templeton*	\$168.3	3/31/2011	5.9%	7.6%	0.8
BlackRock EAFE Small Cap*	\$52.3	5/31/2010	-0.2%	0.7%	-0.3
Total Int'l Developed Equity	\$2,949.8	3/31/1987	-0.6%	3.2%	-0.2
Total Int'l Equity	\$4,034.8	3/31/1987	-1.0%	3.2%	-0.3

^{*}Represents managers with less than five years of performance data; composite performance has been linked to ASRS portfolio performance. Aberdeen(Composite performance December 1989 – February 2011).

Walter Scott (Composite performance December 1993 – March 2011).

BlackRock EAFE (Composite performance January 1986 – June 2009).

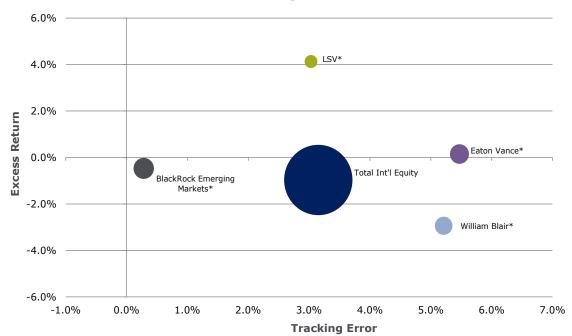
Franklin Templeton (Composite performance November 2002 – March 2011).

BlackRock EAFE Small Cap (Composite performance October 2007 – May 2010).

Emerging Markets Equity Volatility/Return

Volatility/Return Bubble Chart

For the Five Year Period Ending December 31, 2011



	Portfolio			Tracking	Information
Manager	Assets (\$MM)	Inception Date	Alpha	Error	Ratio
Eaton Vance*	\$314.1	11/30/2010	0.2%	5.5%	0.0
LSV*	\$141.4	11/30/2010	4.1%	3.0%	1.4
William Blair*	\$270.3	10/31/2010	-2.9%	5.2%	-0.6
BlackRock Emerging Markets*	\$358.8	9/30/2010	-0.5%	0.3%	-1.7
Total Emerging Markets Equity	\$1,084.6	9/30/2010	n/a	n/a	n/a
Total Int'l Equity	\$4,034.8	3/31/1987	-1.0%	3.2%	-0.3

^{*}Represents managers with less than five years of performance data; composite performance has been linked to ASRS portfolio performance. Eaton Vance (Composite performance June 1998 – November 2010).

LSV(Composite performance June 2005 – November 2010).

William Blair(Composite performance September 1999 – October 2010).

BlackRock Emerging Markets Equity (Composite performance August 2000 - September 2010).

ASRS International Equity Performance

										Anı	nualized	Returns			_
	Ending Market Value	Last Quarter	Rank	Six Months	Rank	One Year	Rank	Three Years	Rank	Five Years	Rank	Ten Years	Rank	Since Inception	Inception Date
Total International Equity ¹	\$4,034,810,782	3.2%	63	-16.5%	45	-13.2%	51	9.2%	61	-3.4%	65	5.2%	85	5.8%	Mar-87
ASRS Custom Int'l Equity Index ²		3.1%		-17.0%		-13.2%		11.3%		-2.5%		6.2%		5.3%	
Performance Variance (Return - Benchmark)		0.1%		0.5%		0.0%		-2.1%		-1.0%		-1.0%		0.4%	
ICC Combined Int'l Equity Funds Median		4.0%		-16.7%		-12.8%		11.0%		-2.1%		7.3%			
Total International Developed Markets Equity ³	\$2,949,817,404	3.3%	61	-15.8%	44	-11.8%	44	9.9%	47	-3.1%	54	5.4%	78	5.8%	Mar-87
ASRS Custom Int'l Equity Index ²		3.1%		-17.0%		-13.2%		11.3%		-2.5%		6.2%		5.3%	
Performance Variance (Return - Benchmark)		0.1%		1.1%		1.4%		-1.4%		-0.6%		-0.8%		0.5%	
ICC Int'l Developed Markets Equity Funds Median		4.0%		-16.4%		-12.1%		9.9%		-2.6%		6.9%			
ACTIVE LARGE CAP INTERNATIONAL EQUITY															
Aberdeen	\$378,234,901	7.0%	7	-8.8%	6	n/a		n/a		n/a		n/a		-6.3%	Feb-11
MSCI EAFE		3.4%		-16.2%		-11.7%		8.2%		-4.3%		5.1%		-16.6%	
Performance Variance (Return - Benchmark)		3.6%		7.4%		n/a		n/a		n/a		n/a		10.2%	
Brandes	\$358,832,879	2.8%	68	-14.2%	27	-11.2%	39	5.2%	82	-4.7%	77	6.1%	63	8.4%	Sep-98
Brandes Custom Benchmark ⁴		3.4%		-16.2%		-13.5%		11.1%		-2.5%		6.1%		4.9%	
Performance Variance (Return - Benchmark)		-0.6%		2.1%		2.3%		-5.9%		-2.2%		0.0%		3.5%	
Hansberger	\$235,999,252	3.2%	61	-20.8%	89	-18.5%	88	11.6%	29	-3.9%	63	n/a		2.3%	Jul-05
Hansberger Custom Benchmark ⁵		3.4%		-16.2%		-13.5%		11.1%		-2.5%		6.7%		3.7%	
Performance Variance (Return - Benchmark)		-0.2%		-4.6%		-5.0%		0.5%		-1.4%		n/a		-1.4%	
Walter Scott	\$168,984,662	2.4%	75	-14.9%	31	n/a		n/a		n/a		n/a		-12.8%	Mar-11
MSCI EAFE		3.4%		-16.2%		-11.7%		8.2%		-4.3%		5.1%		-14.7%	
Performance Variance (Return - Benchmark)		-1.0%		1.4%		n/a		n/a		n/a		n/a		1.9%	
PASSIVE LARGE CAP INTERNATIONAL EQUITY															
BlackRock EAFE Equity Index	\$1,490,199,013	3.3%	61	-16.3%	49	-11.8%	47	n/a		n/a		n/a		6.3%	Jun-09
MSCI EAFE		3.4%		-16.2%		-11.7%		8.2%		-4.3%		5.1%		6.4%	
Performance Variance (Return - Benchmark)		0.0%		-0.1%		-0.1%		n/a		n/a		n/a		-0.1%	
ACTIVE SMALL CAP INTERNATIONAL EQUITY															
DFA	\$96,954,832	-0.8%	96	-21.1%	90	-19.7%	90	7.9%	62	-5.1%	79	n/a		1.3%	Aug-05
MSCI EAFE Small Cap		-0.5%		-19.0%		-15.7%		15.0%		-3.8%		9.4%		1.6%	
Performance Variance (Return - Benchmark)		-0.3%		-2.1%		-4.1%		-7.1%		-1.3%		n/a		-0.3%	
Franklin Templeton	\$168,252,432	0.7%	89	-14.3%	42	n/a		n/a		n/a		n/a		-14.5%	Mar-11
MSCI EAFE Small Cap		-0.5%		-19.0%		-15.7%		15.0%		-3.8%		9.4%		-18.1%	
Performance Variance (Return - Benchmark)		1.3%		4.7%		n/a		n/a		n/a		n/a		<i>3.7</i> %	
PASSIVE SMALL CAP INTERNATIONAL EQUITY															
BlackRock EAFE Small Cap Equity Index	\$52,261,843	-0.5%	97	-19.0%	83	-15.9%	83	n/a		n/a		n/a		6.4%	May-10
MSCI EAFE Small Cap		-0.5%		-19.0%		-15.7%		15.0%		-3.8%		9.4%		6.5%	
Performance Variance (Return - Benchmark)		0.0%		0.0%		-0.2%		n/a		n/a		n/a		-0.1%	
ICC Non-U.S. Developed Markets Equity Funds Median	_	4.0%		-16.4%		-12.1%		9.9%		-2.6%		6.9%			

¹Total International Equity market value includes \$436,920 of residual cash remaining in terminated manager accounts.

²ASRS Custom Int'l Equity Index was MSCI EAFE through 9/30/2005; MSCI ACWI ex-U.S. through 12/31/2010; 72% MSCI EAFE/11% MSCI EAFE Small Cap/17% MSCI Emerging Markets thereafter.

³Total International Developed Markets Equity market value includes \$97,590 of residual cash remaining in terminated manager accounts.

Brandes Custom Benchmark is a blend of the MSCI EAFE Index prior to 10/1/2005, the MSCI ACWI ex-U.S. Index from 10/1/2005 - 2/28/2011, and the MSCI EAFE Index from 3/1/2011 - present.

⁵Hansberger Custom Benchmark is a blend of the MSCI ACWI ex-U.S. prior to 3/1/2011, and the MSCI EAFE Index from 3/1/2011 - present.

Note: Performance is reported net of fees. Ranks and ICC medians are based on gross of fee performance data.

ASRS International Equity Performance

										Anı	nualized	Returns			_
	Ending Market Value	Last Quarter	Rank	Six Months	Rank	One Year	Rank	Three Years	Rank	Five Years	Rank	Ten Years	Rank	Since Inception	Inception Date
Total International Emerging Markets Equity	\$1,084,556,458	3.4%	62	-19.1%	52	-18.4%	52	n/a		n/a		n/a		-11.6%	Sep-10
MSCI Emerging Markets Index		4.5%		-19.0%		-18.2%		20.4%		2.7%		14.2%		-9.8%	
Performance Variance (Return - Benchmark)		-1.0%		-0.1%		-0.2%		n/a		n/a		n/a		-1.8%	
ICC Int'l Emerging Markets Equity Funds Median		4.0%		-18.7%		-18.0%		20.5%		2.6%		15.0%			
ACTIVE EMERGING MARKETS EQUITY															
Eaton Vance	\$314,086,266	2.3%	88	-19.2%	52	-19.0%	58	n/a		n/a		n/a		-12.8%	Nov-10
MSCI Emerging Markets Index		4.5%		-19.0%		-18.2%		20.4%		2.7%		14.2%		-11.4%	
Performance Variance (Return - Benchmark)		-2.2%		-0.1%		-0.8%		n/a		n/a		n/a		-1.4%	
LSV	\$141,439,592	3.1%	67	-21.4%	72	-18.7%	50	n/a		n/a		n/a		-12.3%	Nov-10
MSCI Emerging Markets Index		4.5%		-19.0%		-18.2%		20.4%		2.7%		14.2%		-11.4%	
Performance Variance (Return - Benchmark)		-1.4%		-2.4%		-0.5%		n/a		n/a		n/a		-0.9%	
William Blair	\$270,277,943	4.3%	35	-16.0%	25	-16.4%	29	n/a		n/a		n/a		-12.9%	Oct-10
MSCI Emerging Markets Index		4.5%		-19.0%		-18.2%		20.4%		2.7%		14.2%		-12.7%	
Performance Variance (Return - Benchmark)		-0.2%		3.0%		1.8%		n/a		n/a		n/a		-0.2%	
PASSIVE EMERGING MARKETS EQUITY															
BlackRock Emerging Markets Equity Index	\$358,752,658	4.4%	36	-19.2%	58	-18.5%	56	n/a		n/a		n/a		-10.2%	Sep-10
MSCI Emerging Markets Index		4.5%		-19.0%		-18.2%		20.4%		2.7%		14.2%		-9.8%	
Performance Variance (Return - Benchmark)		0.0%		-0.2%		-0.4%		n/a		n/a		n/a		-0.4%	
ICC Int'l Emerging Markets Equity Funds Median		4.0%		-18.7%		-18.0%		20.5%		2.6%		15.0%			

Note: Performance is reported net of fees. Ranks and ICC medians are based on gross of fee performance data.

Takeaways and Other Discussion Topics

International Large Cap Developed Equity

- All active managers outperformed their respective benchmarks in 2011 with the exception of Hansberger.
- Brandes outperformed its custom benchmark by 2.3%, while Hansberger trailed its custom benchmark by 5.0%.
- Aberdeen and Walter Scott were funded in February and March 2011, respectively.
 - Aberdeen Excess Return Since Inception: +10.2%
 - Walter Scott Excess Return Since Inception: +1.9%

International Small Cap Developed Equity

- DFA, an active quantitative manager, struggled in what was a difficult market environment for international small cap equities in 2011, trailing the MSCI EAFE Small Cap Index by 4.1%.
- Franklin Templeton, an active fundamental manager, was funded in March 2011.
 - Excess Return Since Inception: 3.7%

Emerging Markets Equity

- Active quantitative managers (Eaton Vance, LSV) lagged the index in 2011, while William Blair, an active fundamental manager, outperformed the index by 1.8% in 2011.
- − The poor performance of the quantitative strategies, along with their sizeable weight (~63%) in the portfolio, offset the gains made by William Blair in 2011.
- All active strategies trail the index since their inception in 4Q 2010.

Other Topics

- Relative Valuations: Developed Markets vs. Emerging Markets.
- Value Add Opportunity: Emerging Markets Small Cap
- Recent IMD portfolio rebalancings.

Active Manager Assessment (NEPC)

Manager	Strategy	Conviction Level	NEPC Focused Placement List Strategy
Aberdeen	Active Int'l Large Cap Core	Mild	No
Brandes	Active Int'l Large Cap Value	Mild	No
Hansberger	Active Int'l Large Cap Growth	High	Yes
Walter Scott	Active Int'l Large Cap Growth	High	Yes
DFA	Active Int'l Small Cap Value	High	Yes
Franklin Templeton	Active Int'l Small Cap Growth	Mild	No
Eaton Vance	Active Emerging Markets Core	High	Yes
LSV	Active Emerging Markets Value	High	No ¹
William Blair	Active Emerging Markets Growth	High	Yes

NEPC's Focused Placement List represents internally vetted managers and strategies we put forward to clients who are conducting a search. Criteria for inclusion vary per asset class.

[&]quot;High Conviction Level" strategies denote NEPC's belief that the manager has above average prospects of generating alpha going forward.

[&]quot;Mild Conviction Level" strategies denote NEPC's belief that the manager has average prospects of generating alpha going forward.

[&]quot;Low Conviction Level" strategies denote NEPC's belief that the manager has below average prospects of generating alpha going forward.

¹LSV's Emerging Markets Value Equity strategy is currently closed to new investors.

International Equity Manager Review (Individual)

Note: All of the data in this section is as of December 31, 2011, unless otherwise noted.

Factors	Description
People	•Experienced team of 15 investment professionals led by Stephen Docherty, who has been with the firm since 1994.
	•Global Equity Team averages 13 years' experience and 12 years with Aberdeen.
	•The team is supported by 81 regional team members located in investment offices in London, Edinburgh, Philadelphia, Sao Paulo, Singapore, Bangkok, Hong Kong, Sydney, Kuala Lumpur and Tokyo.
Philosophy	•Believe that given the inefficiency of markets, competitive long-term returns are achieved by identifying high quality stocks at attractive valuations and holding for the long term. Aberdeen believes sound fundamentals drive stock prices over time.
	•The team employs a fundamental, bottom-up investment approach based upon a rigorous and disciplined proprietary research effort which originates with direct company due diligence visits.
Process	Bottom-up process based on a disciplined evaluation of companies through direct visits.
	•Rely on proprietary research and do not invest in a company prior to meeting company management.
	Estimate a company's worth in two stages: first quality, then price.Build high conviction, diversified portfolios.
	Hold securities for the long term.

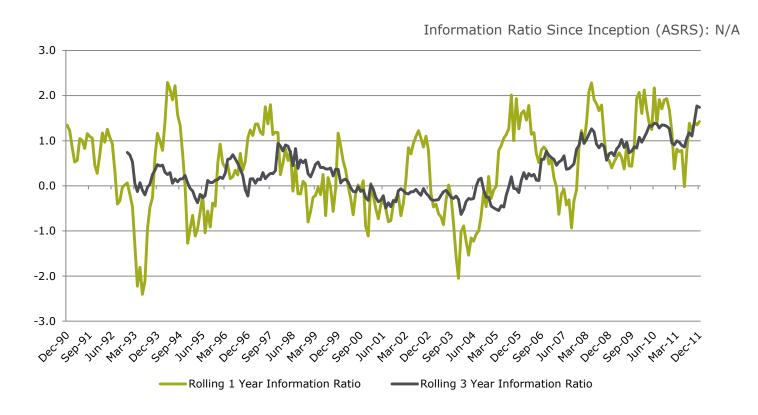
Aberdeen vs. MSCI EAFE Excess Returns Since Inception (December 1989)¹ – December 31, 2011



¹Net of fee performance of the Aberdeen EAFE Plus Equity Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is February 28, 2011.

Note: Based on monthly, net of fee performance data, since inception.

Aberdeen vs. MSCI EAFE
Information Ratios Since Inception (December 1989)¹ – December 31, 2011

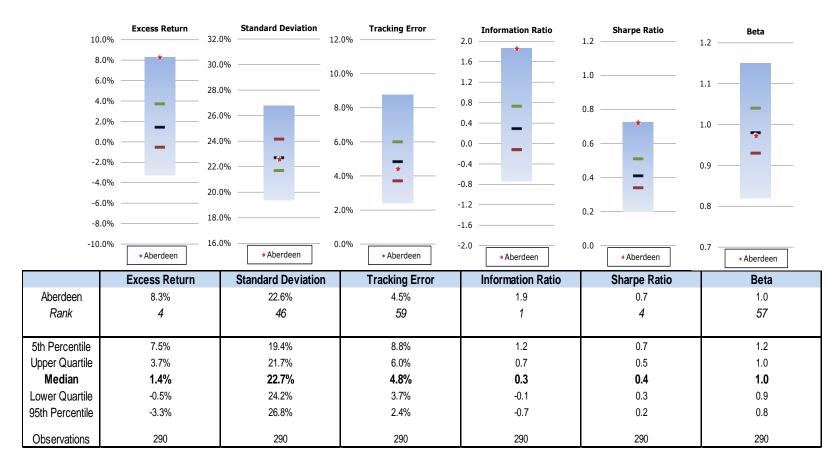


¹Net of fee performance of the Aberdeen EAFE Plus Equity Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is February 28, 2011.

Note: Based on monthly, net of fee performance data, since inception.

Aberdeen vs. MSCI EAFE

Risk and Return Characteristics vs. International Large Cap Equity Universe For the three-year period ending December 31, 2011¹



¹Gross of fee performance of the Aberdeen EAFE Plus Equity Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is February 28, 2011.

Note: Based on monthly, gross of fee performance data, since inception. Universe rankings are against the eVestment Alliance universe of managers as of December 31, 2011.

Brandes Investment Partners, LP

Factors	Description
People	 Research is driven by analysts who are allocated across 7 global industry research teams. Investment Committee responsible for investment decisions and portfolio construction. Stable team, low turnover among investment professionals.
Philosophy	 Seek to identify the intrinsic value of a business through Graham & Dodd, value-oriented, bottom-up fundamental analysis. Volatility in the market creates market inefficiencies and opportunities to buy securities at a discount to intrinsic value.
Process	 Initial candidates are identified by the global analyst group, who screen the universe for low valuation ratios, liquidity, and market capitalization. In addition to these screens, analysts will review third party research reports, monitor financial news sources, consult outside contacts, review regulatory filings, etc. Candidates are reviewed with the primary emphasis on financial statement analysis. Weightings for sectors, regions, etc. result from individual companies trading at significant discounts to the firm's estimate of their intrinsic value, although there are limits to reduce risk and ensure diversification. Ideas are presented to the firm's Investment Committee, where product level purchase and sales decisions are made. Brandes has a more concentrated portfolio (35-85 securities), which could result in higher tracking error. Low portfolio turnover given long term investment horizon.

Brandes Investment Partners, LP

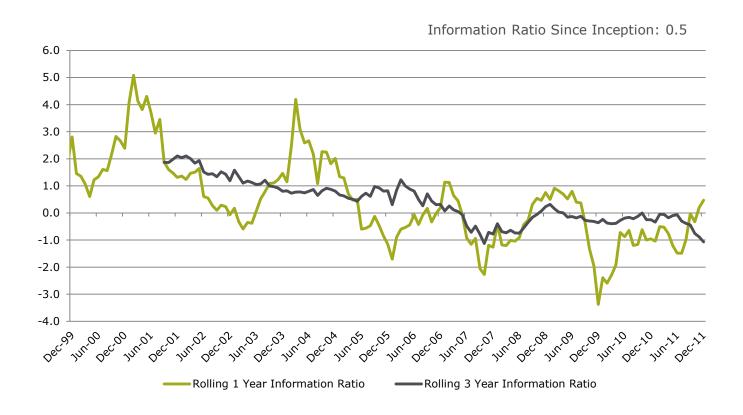
Brandes vs. Brandes Custom Benchmark¹ Excess Returns Since Inception (September 1998) – December 31, 2011



¹Brandes Custom Benchmark is a blend of the MSCI EAFE Index prior to 10/1/2005, the MSCI ACWI ex-U.S. Index from 10/1/2005 – 2/28/2011, and the MSCI EAFE Index from 3/1/2011 – present. Note: Based on monthly, net of fee performance data, since inception.

Brandes Investment Partners, LP

Brandes vs. Brandes Custom Benchmark¹
Information Ratios Since Inception (September 1998) – December 31, 2011



¹Brandes Custom Benchmark is a blend of the MSCI EAFE Index prior to 10/1/2005, the MSCI ACWI ex-U.S. Index from 10/1/2005 – 2/28/2011, and the MSCI EAFE Index from 3/1/2011 – present.

Note: Based on monthly, net of fee performance data, since inception.

Brandes Investment Partners

Brandes vs. Brandes Custom Benchmark¹
Risk and Return Characteristics vs. International Large Cap Equity Universe
For the three-year period ending December 31, 2011



¹Brandes Custom Benchmark is a blend of the MSCI EAFE Index prior to 10/1/2005, the MSCI ACWI ex-U.S. Index from 10/1/2005 – 2/28/2011, and the MSCI EAFE Index from 3/1/2011 – present. Risk statistics shown above are against the MSCI EAFE Index for the entire three-year period for purposes of this analysis.

Note: Based on monthly, gross of fee performance data, since inception. Universe rankings are against the eVestment Alliance universe of managers as of December 31, 2011.

Factors	Description
People	 Team-based approach, investment professionals and industry analysts provide ideas; however, CIO has ultimate decision-making authority, backed up by the Portfolio Management team. Stable team, low turnover among investment professionals.
Philosophy	•Strategy focuses on companies that have a competitive market advantage and exhibit above average growth prospects, trading at attractive valuations.
Process	 Quantitative screens of a universe of roughly 10,000 names are used to identify the "Star List", which consists of approximately 500 stocks with superior profitability, secular growth, sustainable competitive advantage, and strong capital structure. The screens are intended to identify those companies that have consistently been industry and market leaders. The "Star List" is rated based on relative valuation and price momentum; the top 100-125 stocks are considered for portfolio inclusion. Fundamental analysis is used to further refine the list and identify any issues the quantitative approach may have overlooked. The final portfolio is concentrated, typically holding approximately 60-70 securities.

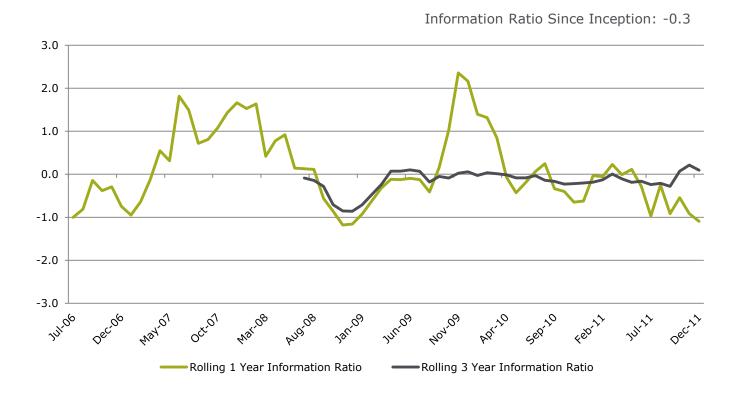
Hansberger vs. Hansberger Custom Benchmark¹ Excess Returns Since Inception (July 2005) – December 31, 2011



Note: Based on monthly, net of fee performance data, since inception.

¹Hansberger Custom Benchmark is a blend of the MSCI ACWI ex-U.S. Index prior to 3/1/2011, and the MSCI EAFE Index from 3/1/2011 – present.

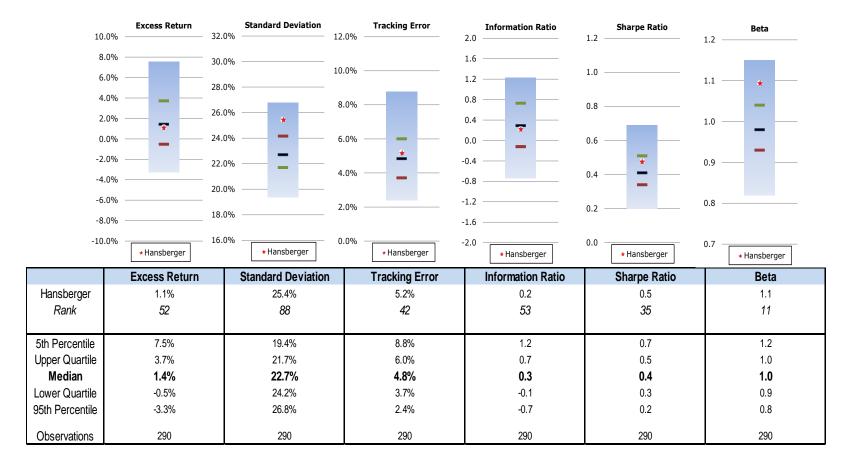
Hansberger vs. Hansberger Custom Benchmark¹ Information Ratios Since Inception (July 2005) – December 31, 2011



Note: Based on monthly, net of fee performance data, since inception.

¹Hansberger Custom Benchmark is a blend of the MSCI ACWI ex-U.S. Index prior to 3/1/2011, and the MSCI EAFE Index from 3/1/2011 – present.

Hansberger vs. Hansberger Custom Benchmark¹
Risk and Return Characteristics vs. International Large Cap Equity Universe
For the three-year period ending December 31, 2011



¹Hansberger Custom Benchmark is a blend of the MSCI ACWI ex-U.S. Index prior to 3/1/2011, and the MSCI EAFE Index from 3/1/2011 – present. Risk statistics shown above are against the MSCI EAFE Index for the entire three-year period for purposes of this analysis. Note: Based on monthly, gross of fee performance data, since inception. Universe rankings are against the eVestment Alliance universe of managers as of December 31, 2011.

Factors	Description
People	•Walter Scott's investment professionals work closely together as a team in an open and collegiate environment. Irrespective of mandate, every portfolio is managed by bringing together the skill, judgment and experience of the investment team. Senior investment professionals have an average tenure of 19 years with the firm.
Philosophy	•The firm's core conviction is that over the long term, return to shareholders can only ever be as great as the wealth generated by the underlying businesses in which they are invested. Therefore, the primary task is to identify those companies capable of sustaining the highest rates of wealth generation. Walter Scott does so using original, fundamental research carried out by the firm's own investment team across an investment universe that is unrestricted by region, market sector or benchmark.
Process	 Walter Scott's fundamental, bottom-up investment approach combines detailed financial research with business and industry analysis. Meetings with company management are central to the process. Over 600 companies are met face-to-face per annum. Some consideration is given to a company's economic and political environment, however, fundamentals are what primarily dictate investment decisions. Growth, margin structure, internal cash generation, balance sheet strength, market leadership, barriers to entry and sustainability of the business franchise are typical examples of the investment focus.
	•The investment team meets formally three times each week to review stocks and debate new ideas. Its goal is to find, buy and hold around 50 great stocks with longevity of compound growth. It is a careful, thorough, exacting and meticulous process.

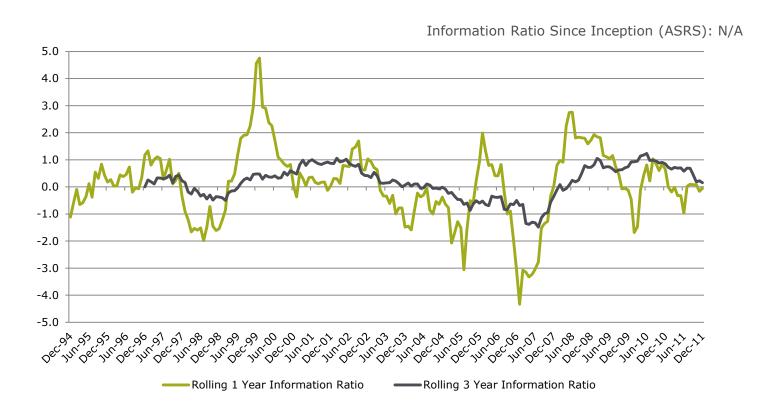
Walter Scott vs. MSCI EAFE
Excess Returns Since Inception (December 1993)¹ – December 31, 2011



¹Net of fee performance of the Walter Scott EAFE/International Composite is presented in the chart above. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is March 31, 2011.

Note: Based on monthly, net of fee performance data, since inception.

Walter Scott vs. MSCI EAFE
Information Ratios Since Inception (December 1993)¹ – December 31, 2011



¹Net of fee performance of the Walter Scott EAFE/International Composite is presented in the chart above. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is March 31, 2011.

Note: Based on monthly, net of fee performance data, since inception.

Walter Scott vs. MSCI EAFE

Risk and Return Characteristics vs. International Large Cap Equity Universe For the three-year period ending December 31, 2011¹



¹Gross of fee performance of the Walter Scott EAFE/International Composite is presented in the chart above. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is March 31, 2011.

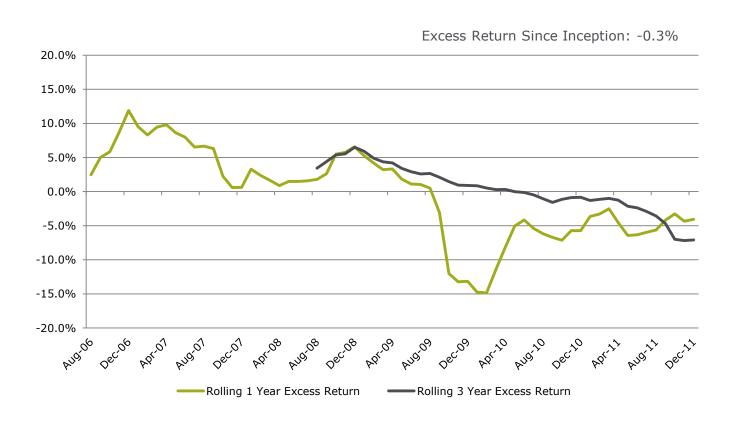
Note: Based on monthly, gross of fee performance data, since inception. Universe rankings are against the eVestment Alliance universe of managers as of December 31, 2011.

Dimensional Fund Advisors, L.P.

Factors	Description
People	 Team approach where no one individual is solely responsible for a strategy or account. Stable team, low turnover among investment professionals. Research group plays a critical role in DFA's strategy and execution. Strong ties to the academic world.
Philosophy	•Believe markets work: risk and return are related. Believe greater exposure to three factors: equity exposure, company size and company price, should result in a higher portfolio expected return.
Process	 Eligible securities are those in countries included in the MSCI EAFE Small Cap Index and Canada that are also above \$50 million in market capitalization. Eligible securities are identified through screens for market capitalization (smallest 10-15%), book-to-market (top 25%), eligibility (no regulated utilities, recent IPOs, etc.), and trading (buy, hold, sell ranges) on a country-by-country basis. DFA uses trading to gain a liquidity advantage to generate incremental returns. The final portfolio is well diversified, typically holding more than 500 securities.

Dimensional Fund Advisors, L.P.

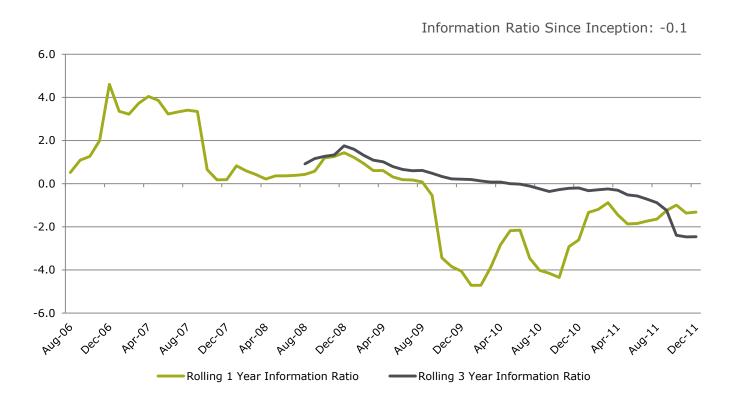
DFA vs. MSCI EAFE Small Cap Excess Returns Since Inception (August 2005) – December 31, 2011



Note: Based on monthly, net of fee performance data, since inception.

Dimensional Fund Advisors, L.P.

DFA vs. MSCI EAFE Small Cap Information Ratios Since Inception (August 2005) – December 31, 2011



Note: Based on monthly, net of fee performance data, since inception.

Dimensional Fund Advisors, L.P.

DFA vs. MSCI EAFE Small Cap

Risk and Return Characteristics vs. Int'l Small Cap Equity Universe For the three-year period ending December 31, 2011



Note: Based on monthly, gross of fee performance data, since inception. Universe rankings are against the eVestment Alliance universe of managers as of December 31, 2011.

Factors	Description
People	 Dedicated Global Small Cap team of 5 investment professionals focused only on smaller cap stocks. Ed Lugo, II, CFA – Portfolio Manager/Analyst, works with 4 additional analysts. Average of 11 years experience. Access to broader Franklin Equity Group - 70+ professionals including Global Large Cap and European Equity teams.
Philosophy	 Believe a concentrated, yet diversified portfolio of high-quality companies has the potential to produce above-average risk-adjusted returns over the longer term. The strategy seeks companies that are attractive from three views: Growth – a clear competitive advantage with the potential for sustainable growth and strong absolute returns over the longer term. Quality – strong balance sheets and free cash flow supported by a management team focused on shareholder value. Valuation – process includes rigorous valuation analysis to select companies that are attractively priced.
Process	•Bottom-up, research-driven approach focused on building a concentrated portfolio of companies (25-45) that meet the portfolio's investment criteria with minimal downside risk. Fundamental research is the core driver of portfolio construction, with over 90% of research generated in-house. •Identify Ideas and Review Key Attributes – qualitative and quantitative means to identify companies with a market capitalization between \$100M and \$5B that they believe have sustainable competitive advantages and the potential to produce a minimum 10% return over a five-year period. •In-depth Fundamental Analysis – with a long-term investment horizon, intense, bottom-up analysis is the most crucial aspect of the investment process. Analysts may spend 4-8 weeks deeply investigating a company, as well as its industry and competitors, from many angles against the growth, quality and valuation investment criteria. •Formal Rating & Inclusion in Portfolios – strict buy and sell targets; 25-45 holdings; no more than 35% in one industry at investment; no more than 10% in one company at market value; no more than 10% in Emerging Markets securities.

Franklin Templeton vs. MSCI EAFE Small Cap Excess Returns Since Inception (November 2002)¹ – December 31, 2011

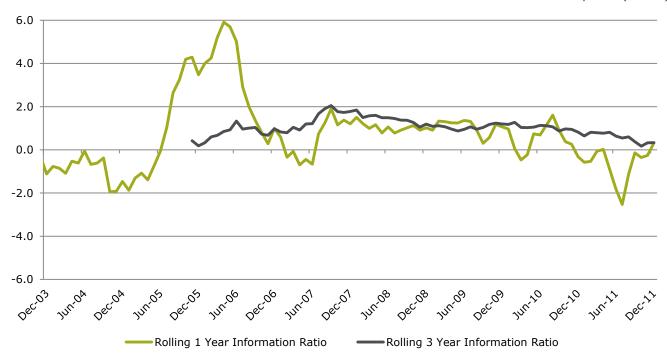


¹Net of fee performance of the Franklin Templeton Franklin International Small Cap Growth Equity Composite is presented in the chart above. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is March 31, 2011.

Note: Based on monthly, net of fee performance data, since inception.

Franklin Templeton vs. MSCI EAFE Small Cap Information Ratios Since Inception (November 2002)¹ – December 31, 2011

Information Ratio Since Inception (ASRS): N/A



¹Net of fee performance of the Franklin Templeton Franklin International Small Cap Growth Equity Composite is presented in the chart above. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is March 31, 2011.

Note: Based on monthly, net of fee performance data, since inception.

Franklin Templeton vs. MSCI EAFE Small Cap
Risk and Return Characteristics vs. Int'l Small Cap Equity Universe
For the three-year period ending December 31, 2011¹



¹Gross of fee performance of the Franklin Templeton Franklin International Small Cap Growth Equity Composite is presented in the chart above. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is March 31, 2011.

Note: Based on monthly, gross of fee performance data, since inception. Universe rankings are against the eVestment Alliance universe of managers as of December 31, 2011.

Factors	Description
People	 Parametric Structured Emerging Markets Team – 14 years' average investment experience; 8 years' average experience with team; specialists in structured equity portfolio management. Key team members include: David Stein, Ph.D., Chief Investment Officer & Strategic Director Thomas Seto, Managing Director – Portfolio Management Jodi Wong, Director – Emerging Markets Portfolio Management Lee Thacker, CFA, Director of Trading Paul Bouchey, CFA, Director of Research Vassilii Nemtchinov, Ph.D., Manager of Applied Research Brian Dillon, Director – Institutional Services and Institutional Portfolio Manager
Philosophy	 Parametric seeks broad exposure to the emerging markets equity asset class with less risk and higher return versus capitalization weighted indices. This approach takes advantage of the low correlations of emerging markets to reduce risk, diversifies the portfolio through an emphasis on smaller countries vs. indices, and utilizes a rebalancing process that exploits price reversals.
Process	 •The strategy employs a top-down, rules-based approach that emphasizes broad exposure and diversification among emerging and frontier market countries, economic sectors and individual issuers. •The country selection process is driven by a tiered approach in which countries are equally weighted within each of the model tiers based upon market capitalization and liquidity. •Within each country, the team seeks to ensure broad sector exposure to all major economic activities and seeks to weight each sector group more equally. Currently, the team's target model maintains exposure of up to 45 emerging and frontier countries across the globe. •At the security level, the team takes a more passive approach, focusing on capturing the systematic return of each country by investing in companies that offer sufficient size and liquidity. •Within each country, the team seeks to diversify sector exposure, and holds 1,000-1,600 securities, focusing on companies that service as strong representatives of economic activity with weights based upon relative capitalization. •A highly controlled rebalancing discipline systematically reduces concentration risk while also capturing profits as a consequence of both country volatility and low cross-correlations within the asset class.

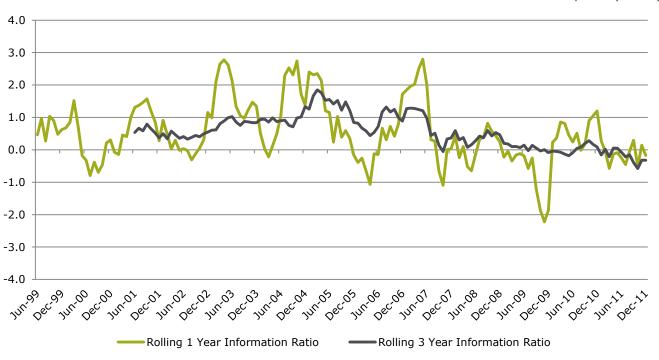
Eaton Vance vs. MSCI Emerging Markets Excess Returns Since Inception (June 1998)¹ – December 31, 2011



¹Net of fee performance of the Eaton Vance Structured Emerging Markets Equity Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is November 30, 2010. *Note: Based on monthly, net of fee performance data, since inception.*

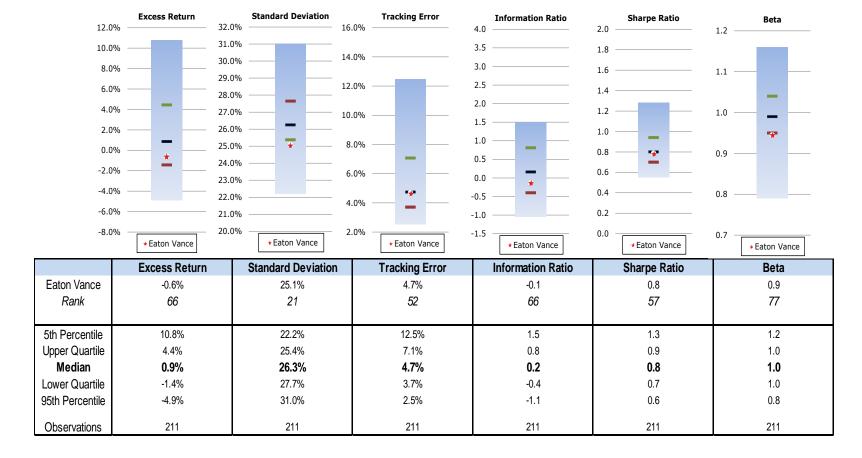
Eaton Vance vs. MSCI Emerging Markets Information Ratios Since Inception (June 1998)¹ – December 31, 2011

Information Ratio Since Inception (ASRS): -0.3



¹Net of fee performance of the Eaton Vance Structured Emerging Markets Equity Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is November 30, 2010. *Note: Based on monthly, net of fee performance data, since inception.*

Eaton Vance vs. MSCI Emerging Markets
Risk and Return Characteristics vs. Emerging Markets Equity Universe
For the three-year period ending December 31, 2011¹



¹Gross of fee performance of the Eaton Vance Structured Emerging Markets Equity Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is November 30, 2010.

Note: Based on monthly, gross of fee performance data, since inception. Universe rankings are against the eVestment Alliance universe of managers as of December 31, 2011.

Factors	Description
People	No turnover in investment management team. The same team of academics and quantitative analysts is responsible for managing all value equity portfolios.
Philosophy	•Based on original academic research in behavioral finance, LSV believes markets are inefficient as investors tend to extrapolate past performance too far into the future. They also believe that investors are slow to change their "mindset" about a company.
Process	 Quantitative approach ranks stocks on fundamental measures of value, past performance and indicators of near-term potential. Stocks are ranked by country and LSV does not take material country bets versus benchmark. Portfolio is optimized to ensure the portfolio is broadly diversified across industries and companies. Control tracking error relative to the benchmark by maintaining strict buy/sell criteria. Deep value orientation. The competitive strength of this strategy is that it avoids introducing to the process any judgmental biases and behavioral weaknesses that often influence investment decisions.

LSV vs. MSCI Emerging Markets Excess Returns Since Inception (June 2005)¹ – December 31, 2011

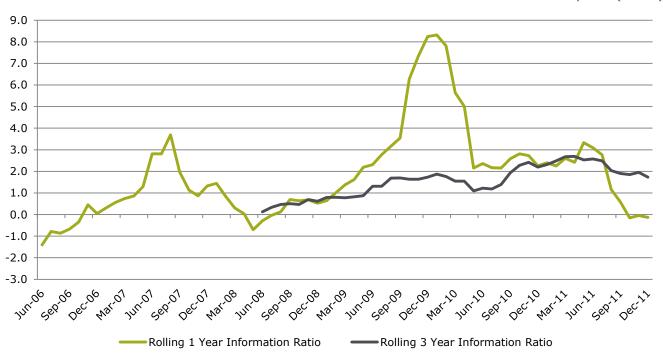


¹Net of fee performance of the LSV Emerging Markets Value Equity Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is November 30, 2010.

Note: Based on monthly, net of fee performance data, since inception.

LSV vs. MSCI Emerging Markets
Information Ratios Since Inception (June 2005)¹ – December 31, 2011

Information Ratio Since Inception (ASRS): -0.3



¹Net of fee performance of the LSV Emerging Markets Value Equity Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is November 30, 2010.

Note: Based on monthly, net of fee performance data, since inception.

Excess Return

Standard Deviation

LSV vs. MSCI Emerging Markets

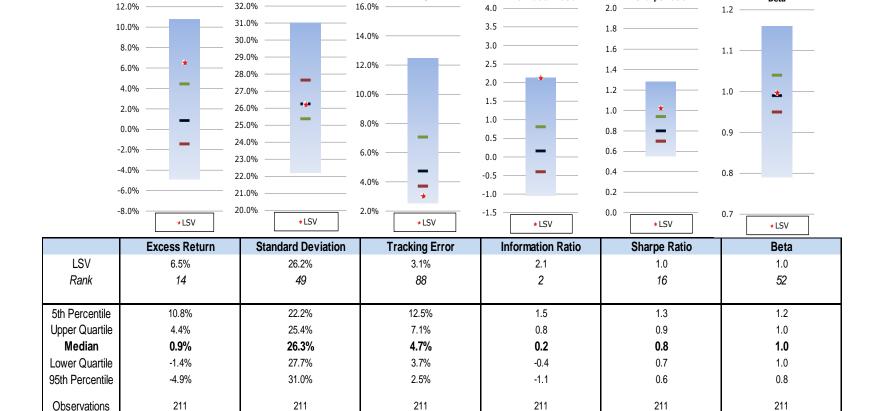
Risk and Return Characteristics vs. Emerging Markets Equity Universe For the three-year period ending December 31, 2011¹

Information Ratio

Sharpe Ratio

Beta

Tracking Error



Note: Based on monthly, gross of fee performance data, since inception. Universe rankings are against the eVestment Alliance universe of managers as of December 31, 2011.

¹Gross of fee performance of the LSV Emerging Markets Value Equity Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is November 30, 2010.

Factors	Description
People	 William Blair is an employee owned full line investment firm. It was founded in Chicago in 1935 for the purpose of identifying fast growing, high quality companies and providing these companies with investment banking services. Jeff Urbina and Todd McClone, Principal, currently manage the Emerging Markets strategy and have eleven research analysts, who are organized by sector, supporting the strategy. All investment professionals are located in the Chicago office with the exception of one analyst who was hired last year and a trader, both of whom are based in London.
Philosophy	•William Blair has a quality growth philosophy wherein they believe that certain companies can achieve long term success because of intrinsic characteristics they possess such as discipline, focus, culture and continuity which can drive sustainable superior returns and growth in dividends and earnings.
Process	 William Blair's investment process incorporates a combination of quantitative and qualitative factors which identify companies that can grow earnings above market trends for longer periods of time. Quantitative screens are used to identify companies within a universe of 10,000 investable names as candidates that have attractive quality growth characteristics. Companies that make it through this first screen are placed on an Eligibility List/Research Database and are assigned to analysts who are responsible for company visits and more in depth review. From the Eligibility List, a weekly focus list or "Research Agenda" is developed, which identifies potential buy/sell candidates. These names are the highest priority companies from the perspective of the portfolio managers or analysts and have become potential candidates as a result of either quantitative or thematic analysis. After a vigorous vetting process, candidates on the Research Agenda are added to the portfolio, sold from the portfolio, or dropped from the Research Agenda.

William Blair vs. MSCI Emerging Markets
Excess Returns Since Inception (September 1999)¹ – December 31,
2011



¹Net of fee performance of the William Blair International Growth Emerging Markets Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is October 31, 2010.

Note: Based on monthly, net of fee performance data, since inception.

William Blair vs. MSCI Emerging Markets
Information Ratios Since Inception (September 1999)¹ – December 31, 2011

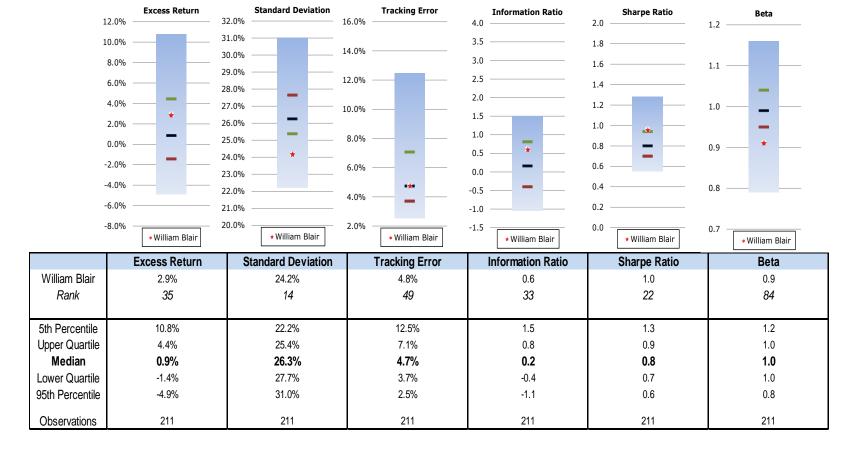
Information Ratio Since Inception (ASRS): 0.0



¹Net of fee performance of the William Blair International Growth Emerging Markets Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is October 31, 2010.

Note: Based on monthly, net of fee performance data, since inception.

William Blair vs. MSCI Emerging Markets
Risk and Return Characteristics vs. Emerging Markets Equity Universe
For the three-year period ending December 31, 2011¹



¹Gross of fee performance of the William Blair International Growth Emerging Markets Composite is linked with ASRS portfolio performance. Composite data provided by eVestment Alliance. Inception date of the ASRS portfolio is October 31, 2010.

Note: Based on monthly, gross of fee performance data, since inception. Universe rankings are against the eVestment Alliance universe of

managers as of December 31, 2011.

Information Disclosure

- These materials contain summary information regarding the investment management approaches described herein and are not a complete description of the investment objectives, policies, guidelines or portfolio management and research that supports these approaches. This analysis does not constitute a recommendation to implement any of the aforementioned approaches. The information has been obtained from sources NEPC believes to be reliable, but we cannot guarantee its accuracy or completeness.
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